

Amendments to the Claims:

Claims 1, 15, and 40 have been amended herein. Please note that all claims currently pending and under consideration in the referenced application are shown below. Please enter these claims as amended. This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (currently amended) A melt-pourable explosive composition comprising:
30 weight percent to 70 weight percent of one or more organic binders selected from the group consisting of mononitro aromatics and dinitro aromatics, the one or more organic binders collectively exhibiting a total energy of detonation lower than trinitrotoluene and collectively having a total melting point in a range of 80°C to 115°C; and
30 weight percent to 70 weight percent of one or more oxidizers,
wherein the melt-pourable explosive composition is pourable ~~and is remeltable to a pourable state~~ at a temperature in a range of 80°C to 115°C, and
wherein at least 95 weight percent of the melt-pourable explosive composition comprises a combination of the one or more organic binders and the one or more ~~inorganic~~ oxidizers.
2. (Previously presented) The melt-pourable explosive composition of claim 1, wherein the one or more organic binders comprise at least one mononitro aromatic compound and at least one dinitro aromatic compound.
3. (Previously presented) The melt-pourable explosive composition of claim 1, wherein the mononitro aromatics each comprise one nitrocarbon moiety and wherein the dinitro aromatics each comprise two nitrocarbon moieties.

4. (Previously presented) The melt-pourable explosive composition of claim 1, wherein the one or more organic binders comprise at least one member selected from the group consisting of mononitro-substituted and dinitro-substituted phenyl alkyl ethers.

5. (Previously presented) The melt-pourable explosive composition of claim 1, wherein the one or more binders comprise at least one member selected from the group consisting of 2,4-dinitroanisole, 2,4-dinitrophenetole, and 4-methoxy-2-nitrophenol.

6. (Previously presented) The melt-pourable explosive composition of claim 1, wherein the one or more binders comprise 2,4-dinitroanisole.

7. (Previously presented) The melt-pourable explosive composition of claim 1, wherein the one or more binders comprise an N-alkyl-nitroaniline processing aid.

8. (Previously presented) The melt-pourable explosive composition of claim 1, wherein the one or more binders comprise N-methyl-nitroaniline as a processing aid.

9. (Previously presented) The melt-pourable explosive composition of claim 1, wherein the one or more binders comprise at least one processing aid selected from the group consisting of N-alkyl nitroaniline and N-aryl-nitroaniline, the at least one processing aid accounting for not more than 1 weight percent of the melt-pourable explosive composition.

10. (Previously presented) The melt-pourable explosive composition of claim 1, wherein the melt-pourable explosive composition undergoes an onset of thermal decomposition at a temperature that is at least 55.5°C higher than the temperature at which the melt-pourable explosive composition becomes pourable.

11. (Previously presented) The melt-pourable explosive composition of claim 1, wherein the melt-pourable explosive composition exhibits a card gap value of less than 121.

12. (Previously presented) The melt-pourable explosive composition of claim 1, wherein the melt-pourable explosive composition exhibits a card gap value of less than 101.
13. (Previously presented) The melt-pourable explosive composition of claim 1, wherein the melt-pourable explosive composition exhibits a dent depth in a range of 0.754 cm to 0.922 cm.
14. (Previously presented) The melt-pourable explosive composition of claim 1, wherein the melt-pourable explosive composition has a total energy of detonation of 7.1 kJ/cc to 8.7 kJ/cc.
15. (currently amended) A melt-pourable explosive composition comprising:
30 weight percent to 70 weight percent of one or more organic binders selected from the group consisting of mononitro aromatics and dinitro aromatics, the one or more organic binders collectively exhibiting a total energy detonation lower than trinitrotoluene and collectively having a total melting point in a range of 80°C to 115°C; and
30 weight percent to 70 weight percent of one or more inorganic oxidizers,
wherein the melt-pourable explosive composition is pourable ~~and is remeltable to a pourable state~~ at a temperature in a range of 80°C to 115°C, and
wherein at least 95 weight percent of the melt-pourable explosive composition comprises a combination of the one or more organic binders and the one or more inorganic oxidizers.
16. (Previously presented) The melt-pourable explosive composition of claim 15, wherein the one or more organic binders comprise at least one mononitro aromatic compound and at least one dinitro aromatic compound.

17. (Previously presented) The melt-pourable explosive composition of claim 15, wherein the mononitro aromatics each comprise one nitrocarbon moiety and wherein the dinitro aromatics each comprise two nitrocarbon moieties.

18. (Previously presented) The melt-pourable explosive composition of claim 15, wherein the one or more organic binders comprise at least one member selected from the group consisting of nitrotoluenes, dinitrotoluenes, and dinitronaphthalenes.

19. (Previously presented) The melt-pourable explosive composition of claim 15, wherein the one or more organic compounds comprise at least one member selected from the group consisting of nitrophenols, dinitrophenols, mononitroanilines, and dinitroanilines.

20. (Previously presented) The melt-pourable explosive composition of claim 15, wherein the one or more organic binders comprise at least one member selected from the group consisting of mononitro-substituted and dinitro-substituted phenyl alkyl ethers.

21. (Previously presented) The melt-pourable explosive composition of claim 15, wherein the one or more binders comprise at least one member selected from the group consisting of 2,4-dinitroanisole, 2,4-dinitrophenetole, and 4-methoxy-2-nitrophenol.

22. (Previously presented) The melt-pourable explosive composition of claim 15, wherein the one or more binders comprise 2,4-dinitroanisole.

23. (Previously presented) The melt-pourable explosive composition of claim 15, wherein the one or more organic binders comprise at least one heterocyclic compound.

24. (Previously presented) The melt-pourable explosive composition of claim 15, wherein the one or more binders comprise an N-alkyl-nitroaniline processing aid.

25. (Previously presented) The melt-pourable explosive composition of claim 15, wherein the one or more binders comprise N-methyl-nitroaniline as a processing aid.
26. (Previously presented) The melt-pourable explosive composition of claim 15, wherein the one or more binders comprise an N-aryl-nitroaniline processing aid.
27. (Previously presented) The melt-pourable explosive composition of claim 15, wherein the one or more binders comprise at least one processing aid selected from the group consisting of N-alkyl nitroaniline and N-aryl-nitroaniline, the at least one processing aid accounting for not more than 1 weight percent of the melt-pourable explosive composition.
28. (Previously presented) The melt-pourable explosive composition of claim 15, wherein the one or more inorganic oxidizers comprise at least one member selected from the group consisting of perchlorates and nitrates.
29. (Previously presented) The melt-pourable explosive composition of claim 15, wherein the one or more inorganic oxidizers comprise at least one perchlorate selected from the group consisting of ammonium perchlorate, sodium perchlorate, and potassium perchlorate.
30. (Previously presented) The melt-pourable explosive composition of claim 15, wherein the one or more inorganic oxidizers comprise at least one nitrate selected from the group consisting of ammonium nitrate, sodium nitrate, strontium nitrate, and potassium nitrate.
31. (Previously presented) The melt-pourable explosive composition of claim 15, wherein the one or more inorganic oxidizers have an average particle size of 3 microns to 60 microns.

32. (Previously presented) The melt-pourable explosive composition of claim 15, wherein the one or more inorganic oxidizers have an average particle size of 5 microns to 20 microns.

33. (Canceled)

34. (Previously presented) The melt-pourable explosive composition of claim 15, wherein at least 99 weight percent of the melt-pourable explosive composition comprises a combination of the one or more organic binders and the one or more inorganic oxidizers.

35. (Previously presented) The melt-pourable explosive composition of claim 15, wherein the melt-pourable explosive composition undergoes an onset of thermal decomposition at a temperature that is at least 55.5°C higher than the temperature at which the melt-pourable explosive composition becomes pourable.

36. (Previously presented) The melt-pourable explosive composition of claim 15, wherein the melt-pourable explosive composition exhibits a card gap value of less than 121.

37. (Previously presented) The melt-pourable explosive composition of claim 15, wherein the melt-pourable explosive composition exhibits a card gap value of less than 101.

38. (Previously presented) The melt-pourable explosive composition of claim 15, wherein the melt-pourable explosive composition exhibits a dent depth in a range of 0.754 cm to 0.922 cm.

39. (Previously presented) The melt-pourable explosive composition of claim 15, wherein the melt-pourable explosive composition has a total energy of detonation of 7.1 kJ/cc to 8.7 kJ/cc.

40. (currently amended) A melt-pourable explosive composition comprising:
30 weight percent to 70 weight percent of one or more organic binders selected from the group consisting of mononitro aromatics and dinitro aromatics, the one or more organic binders collectively exhibiting a total energy detonation lower than trinitrotoluene and collectively having a total melting point in a range of 80°C to 115°C; and
30 weight percent to 70 weight percent of one or more inorganic oxidizers,
wherein the melt-pourable explosive composition is melt-pourable ~~and is remeltable to a pourable state~~ at a temperature in a range of 80°C to 115°C, undergoes an onset of thermal decomposition at a temperature that is at least 55.5°C higher than the temperature at which the melt-pourable explosive composition becomes pourable and exhibits a card gap value of less than 121, a dent depth in a range of 0.754 cm to 0.922 cm, and a total energy of detonation of 7.1 kJ/cc to 8.7 kJ/cc, and
wherein at least 95 weight percent of the melt-pourable explosive composition comprises a combination of the one or more organic binders and the one or more inorganic oxidizers.

41. (Previously presented) The melt-pourable explosive composition of claim 40, wherein the card gap value exhibited by the melt-pourable explosive composition is less than 101.

42. (Previously presented) The melt-pourable explosive composition of claim 40, wherein the card gap value exhibited by the melt-pourable explosive composition is less than 81.

43. (Previously presented) The melt-pourable explosive composition of claim 1, wherein at least 99 weight percent of the melt-pourable explosive composition comprises a combination of the one or more organic binders and the one or more inorganic oxidizers.

44. (Previously presented) The melt-pourable explosive composition of claim 41, wherein at least 99 weight percent of the melt-pourable explosive composition comprises a combination of the one or more organic binders and the one or more inorganic oxidizers.